

## ABSTRACT

The purpose of the present invention is to create a temperature control system applied in heating and cooling phases of thermal processing. The invented temperature control system consists of a single frequency converter F to whose output, through contactors, are simultaneously connected: at least one heating system and at least one cooling system. The heating system incorporating resistance heating elements R is actuated by the heating system contactor SG. The cooling system incorporating gas blower, 3-phases induction motor MD is actuated by the blower motor contactor SD. The heating and cooling system contactors (SG and SD) are connected to the output of the frequency converter F and are controlled by the temperature controller RT.